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AMENDMENTS TO THE DRAWINGS

Amend the drawings by replacing drawing sheet 6/7 (containing Figs. 6 and 7) with the attached new drawing sheet 6/7 wherein the ribs 19 have been removed from Figs. 6 and 7 to match Fig. 2 as originally filed. No new matter is added. It is clear from the specification as originally filed that the first embodiment of the retainer ring 1 does not have internal ribs.

REMARKS

Reconsideration and allowance of this application in light of the foregoing amendments and accompanying remarks is respectfully requested.

THE SPECIFICATION AMENDMENTS

The specification has been amended to identify the new figures that were approved by the Examiner in the Office Action dated March 10, 2004.

THE DRAWINGS AMENDMENTS

Figs. 6 and 7 have been amended to correct an error which showed interior ribs 19. The ribs 19 have been deleted so as to agree with Fig. 2 and the other figures showing the first embodiment as illustrated in the drawings as originally filed with the application. No new matter has been added.

THE CLAIM AMENDMENTS

New claims 14-22 have been added to set forth various presently preferred forms of the invention.

THE REJECTION OF THE CLAIMS 1-7, 10, 12 AND 13 IS
OVERCOME AND NEW CLAIMS 14-22 ARE ALLOWABLE

--Claims 1-7, 10, 12, and 13

Claims 1-3, 7, 10, and 12-13 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,642,908 to Mascitelli in view of U.S. Patent No. 2,808,954 to Smith, and claims 4-6 were rejected under 35 U.S.C. §103(a) as being unpatentable over Mascitelli in view of Smith, and further in view of the U.S. Patent No. 6,595,395 to Jourdin et al.

The system in Mascitelli functions in a considerably different manner than the

components of the present invention. It is important to note that Mascitelli is adapted to work with a vessel that has a radial flange (see Mascitelli Fig. 3 illustrating vessel 3 with radial flange 4). Mascitelli provides a sleeve 1 which has inwardly extending projections 16 (Fig. 2), and these projections 16 must be forced down past the bottle flange 4 so as to fit underneath the flange 4 in the undercut region (as can be seen on the left-hand side of Fig. 3). In order to force the sleeve 1 downwardly to locate the projections 16 below the bottle flange 4, the metal covering 5 is initially positioned on the upper part of the sleeve 1 so that the bottom edge of the metal covering 5 rests on the upwardly facing surfaces of the steps 20. Then a downward force is applied to the upper part of the metal covering 5 to push the metal covering 5 against the steps 20 and force the sleeve 1 downwardly, together with the metal covering 5 remaining on the steps 20, until the top of the bottle neck 3 prevents any further downward movement. During this installation procedure, the sleeve lower part 1b elastically and temporarily deflects radially outwardly so that the projections 16 can pass downwardly alongside the bottle flange 4 and so that the projections 16 become located below the bottom of the flange 4--at which point the projections 16 can spring back radially inwardly under the flange 4 owing to the resilience or elasticity of the material. This is described in Mascitelli at column 4, lines 10-27.

As set forth in lines 23-27 in column 4 of Mascitelli, after mounting ("fixing") the sleeve 1 on the bottle 3, further downward axial force on the metal covering 5 causes the metal covering 5 to deform the sleeve projections (steps) 20, and to move downwardly past the deformed projections (steps) 20 until the metal covering 5 reaches the final, lowered position illustrated in Fig. 3.

In contrast, the present invention does not employ inner projections for springing in, or otherwise moving inwardly, underneath a flange of a container. In the present invention system, wherein the inner retainer ring 1 does not require radially extending projections for springing in, or otherwise moving inwardly, underneath a bottle neck flange, the inner retainer ring 1 of the present invention can be used on a bottle that does not have a flange, such as a bottle with a straight cylindrical neck. Because the inner retainer ring 1 of the present invention does not require the use of radially inwardly extending projections for springing in, or otherwise moving inwardly, underneath a bottle flange, the inner retainer ring 1 of the present invention can accommodate bottles having a neck either with a flange or without a flange (see the instant application page 6, lines 28-30).

Further, if the present invention inner retainer ring 1 is employed with a bottle having neck flange, the inner retainer ring 1 can accommodate variations in the flange height (owing to manufacturing tolerances and/or different bottle design standards).

In contrast, in the Mascitelli system, a given sleeve 1 will work well only with a bottle neck having a flange of a predetermined height (i.e., a known, predetermined vertical dimension between the top and bottom of the flange). A variation in the vertical dimension of the bottle flange could result either in an installation that is “loose” (if the bottle flange height dimension is too small) or in an incomplete (“failed”) installation (if the bottle flange height dimension is too great and prevents the sleeve projections 16 from moving radially inwardly underneath the bottom of the flange).

The steps 20 in Mascitelli are provided for transferring load from the metal covering 5

into the sleeve 1. The steps 20 do not function as ribs as set forth in the claims of the instant application. Even, assuming *arguendo*, that the Mascitelli steps 20 are ribs, the Examiner has admitted that the steps 20 do not extend axially over the entire height of the skirt of the inner sleeve or ring.

The Examiner has attempted to combine the U.S. Patent No. 2,808,954 (to Smith) with Mascitelli in rejecting claims 1-3, 7, 10, and 12-13. Of these claims, claims 1 and 10 are the only independent claims. Claims 1 and 10 set forth a device that includes, *inter alia*, (1) a distribution component (e.g., pump or valve) which is to be maintained on a vessel neck and which has an operating rod, (2) a retainer ring with a through opening for the operating rod, and (3) definitive securement of the ring and a surrounding collar on the neck of a vessel. These features, in combination with the other features set forth in the claims, are not taught or suggested by the cited prior art.

The cited patent to Smith (U.S. Patent No. 2,808,954) teaches a tamper-indicating closure. The closure is not a device as set forth in the instant application claims 1 and 10 which includes a (1) distribution component (such as a pump or valve) that has an operating rod and that is to be maintained on a vessel neck, and (2) a retainer ring with a skirt and a through opening for the distribution component operating rod.

Further, Smith provides a plastic cap or hood 11 which is removable, and which is initially covered by a tamper-indicating shell 12 which is also removable. The shell 12 is removed by peeling away the tear-strip 23 to allow the rest of the shell 12 to be separated from the underlying hood 11, which hood 11 can then be pulled off of the top of the container.

Smith therefore teaches a wholly removable structure which is contrary in function and form to the novel device set forth in the independent claims 1 and 10 in the instant application.

The device that is set forth in the instant application independent claims 1 and 10 has the ring and collar which are adapted to be “definitively secured” to a vessel neck. This means that with the present invention, it is not possible for the consumer to ordinarily remove the outer lining collar, the inner retainer ring, or the distribution component (e.g., pump or valve).

One of ordinary skill in the art of pumps or valves would not consider looking to designs of “removable,” tamper-indicating closures. Even if consideration were given to such tamper-indicating, removable closures, the tamper-indicating removable closure taught by Smith wholly fails to disclose a number of the unique features set forth in independent claims 1 and 10.

With the present invention (as claimed in independent claims 1 and 10), in the assembled, but pre-installed configuration (FIG. 1) (and in the configuration after installation on the vessel (FIG. 3)), the external ribs 14 are subject to reaction forces directed radially inwardly against the ribs 14 by the surrounding collar 2.

In contrast, Smith has no significant force directed radially inwardly on the hood ribs 15 by the collar (shell) 12 in the pre-installation configuration (FIG. 1 of Smith). Indeed, FIG. 1 shows a gap or clearance between the slanted sides of the ribs 15 and the inside vertical surface of the surrounding shell 12.

In Smith, there is a pre-formed bead 20 in the shell 12, but that bead 20 does not compress the inner ring (hood) 11 in the pre-installation configuration (FIG. 1). Indeed, Smith teaches away from such pre-installation radial forces between ribs on an internal ring and a surrounding collar to hold them together. Specifically, as stated in Smith, at column 1, line 45,

and at column 2, lines 19-24, the hood (inner ring) 11 is held to the outer collar (shell) 12 by the inwardly turned lower edge flange 19 of the shell 12 to prevent separation prior to installation on the container, and this is also stated in all of the Smith claims.

Because the shell skirt 18 does not compressively engage the hood ribs 15 in the pre-installation configuration of the Smith closure, the hood 11 would fall out of the shell 12 if the shell skirt lower end edge flange 19 was not turned inwardly under the hood 11.

Thus, Smith teaches the use of an inwardly turned flange 19 to retain the hood 11 and shell 12 in the pre-installed configuration (instead of using a radially compressive engagement as in the instant invention).

The Examiner has rejected the instant application independent claims 1 and 10 by combining Mascitelli with Smith. But Mascitelli also fails to teach the use of a radially compressive engagement of the steps 20 on an inner sleeve or ring by a surrounding outer collar to hold the two components together in the pre-installation configuration.

Further, if Mascitelli's steps 20 were extended the height of the skirt like in Smith as suggested by the Examiner, then Mascitelli's steps 20 would be inverted, with thicker part at bottom! Then, such "inverted" steps could not function as intended in Mascitelli for initially supporting a push down collar or cover. In any case, there is no teaching to make longitudinal ribs (as opposed to tapered ribs or steps shown in Smith or Mascitelli).

Mascitelli describes (in column 2, lines 1-5 and lines 23-27) how the outer collar 5 is initially mounted on the inner ring or sleeve 1 in a pre-installation assembly wherein the bottom edge of the outer collar 5 is located at the top of the horizontal step of each of the projections 20--the collar 5 does not extend down along the vertical sides of the projections 20 in the pre-

installed position. Thus, in the pre-installation configuration, the Mascitelli outer collar 5 does not exert a radially compressive force on the projections 20 of the inner ring (sleeve) 1.

Thus, neither Mascitelli nor Smith teach a “pre-installation configuration” that applies radially inwardly directed compressive forces against external ribs on the exterior of an inner ring.

Note that in the assembly of the instant invention, compressive engagement of the inner ring external ribs 14 is set forth in the last clause of the independent claims 1 and 10. The last clause refers to the “external ribs coming in fitting contact against the internal wall of the collar.” In that clause, the phrase “fitting contact against the internal wall of the collar” is just another way of describing the radially compressive engagement of the ribs 14. Indeed, if there was not any radially compressive engagement of the ribs 14 by the surrounding collar 2 in the pre-installation configuration of the assembly of the present invention, then the internal ring 1 would fall out of the surrounding collar 2.

After completion of the installation, the present invention inner retainer ribs extend over the height of the skirt of the ring and are in fitting contact with the internal wall of the outer collar as set forth in independent claims 1 and 10. However, after installation, Mascitelli’s steps (20) still are not located on the skirt and do not extend over the height of the skirt, and Smith’s tapered ribs 15 do not extend over the entire height of the skirt. Fig. 2 of Smith shows a gap between the upper half of the hood flange 14 and the inside wall of the surrounding shell skirt 18 after installation. None of the figures shows the ribs 15 extending all the way up to the top of the flange 14. Indeed, Smith, states, at column 2, lines 11 and 12, that each rib 15 “terminates short of the circular top portion 13.”

The Jourdin et al. '395 patent also wholly fails as an effective reference with respect to the instant application independent claims 1 and 10. In particular, the Jourdin et al. '395 patent does not teach external ribs extending over the height of the skirt of a retainer ring. The independent claims 1 and 10 of the instant application each requires, among other things, that the retainer ring have a skirt with an external wall formed with longitudinal external ribs extending axially vertically over the height of the skirt. In contrast, the Jourdin et al. '395 patent teaches away from such a structure. The Jourdin et al. '395 patent discloses, in Fig. 5, the use of ribs 23 only on an inside surface of a skirt of a ring 20. That is not an external rib structure as set forth in the instant application independent claims 1 and 10.

In view of the above discussion, it is believed that the patents of Mascitelli, Smith, and Jourdin are not properly combinable. Nevertheless, even if combined, they do not teach or suggest the present invention set forth in independent claims 1 and 10 as discussed above. Accordingly, withdrawal of the rejections of independent claims 1 and 10 is respectfully requested.

Further, the dependent claims 2-7, 12, and 13 are each directly or indirectly dependent independent claim 1. Therefore, these dependent claims should be allowable for the same reasons that independent claim 1 is allowable as discussed above. Accordingly, withdrawal of the rejections of dependent claims 2-7, 12, and 13 is respectfully requested.

--New Claims 14-22

Independent claim 14 sets forth that at least a portion of the external ribs (e.g., ribs 14) extend below the vessel flange ("radial thickening," e.g., flange 30) after installation (Figs. 6-9) to provide a secure installation. This feature, along with the other features of independent claim

14, is not taught or suggested by the cited art. For example, Mascitelli discloses external steps 20 above the vessel neck or flange, and Smith discloses external ribs 15 above the bottom of the vessel neck or flange. They do not teach external ribs extending below the bottom of the vessel neck flange after installation. Therefore, allowance of independent claim 14 is respectfully requested.

Dependent claims 15 and 16 should be allowable for the same reasons that independent claim 14 is allowable. Therefore, allowance of claims 15 and 16 is respectfully requested.

New independent claim 17 sets forth, among other things, external ribs (e.g., ribs 14) on the inner ring for contacting the internal wall of the collar (e.g., collar 2) over the entire height of the ribs. This feature, in combination with the other features set forth in the claim, is not taught or suggested by the prior art cited by the Examiner. Note specifically that Smith teaches the use of ribs which decrease in thickness along the rib height (see Fig. 1 and column 2, line 13) so that most of the rib height is spaced inwardly of the collar internal wall.

Claims 18 and 19 are each directly dependent upon new independent claim 17 and therefore include all of the features of new independent claim 17. Dependent claims 18 and 19 should therefore be allowable for the same reasons that new independent claim 17 is allowable as discussed above. Accordingly, allowance of new dependent claims 18 and 19 is respectfully requested.

New independent claim 20 sets forth, among other things, a novel assembled configuration of an inner retainer ring and outer lining collar wherein at least part of the circumference of the retainer ring skirt has a plurality of ribless portions which each extends between two external ribs and which deform radially within the lining collar to define an arc

configuration after assembly of the lining collar around the retaining ring, whereby the ribless portions contact the lining collar internal wall, and the external ribs contact the lining collar internal wall. An example of such a structure is illustrated in the instant application Fig. 3.

The art cited by the Examiner does not teach the novel configuration of the assembly as set forth in independent claim 20. Accordingly, allowance of new independent claim 20 is respectfully requested.

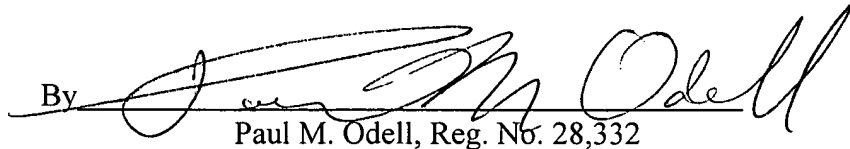
New dependent claims 21 and 22 are each directly dependent upon new independent claim 20 and therefore include all of the features of new independent claim 20. New dependent claims 21 and 22 should therefore be allowable for at least the same reasons that new independent claim 20 is allowable as discussed above. Accordingly, allowance of new dependent claims 21 and 22 is respectfully requested.

It is believed that all of the claims in the application, as amended, are now in condition for allowance, and such action is earnestly solicited.

Further, it is believed that this entire application is now in condition for allowance, and such action is respectfully requested.

Respectfully submitted,

WOOD, PHILLIPS, KATZ, CLARK & MORTIMER

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FIG. 6

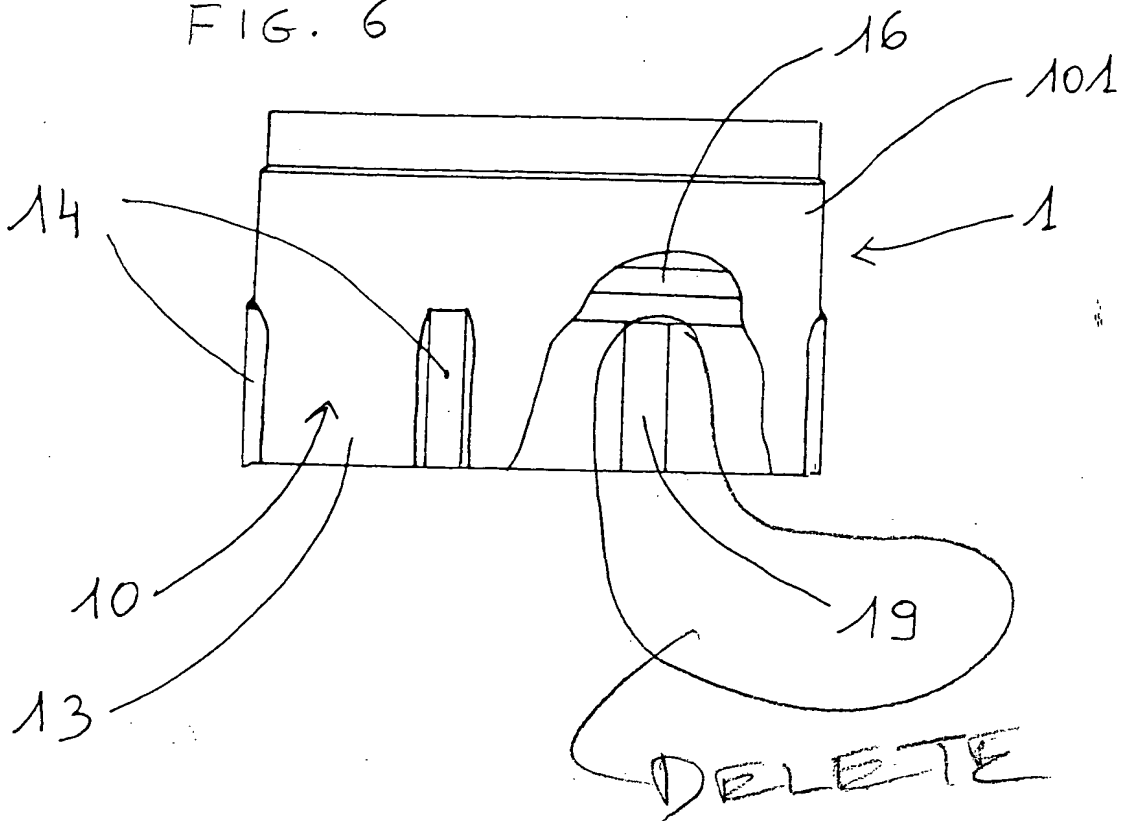


FIG. 7

